

03-12-04

Please type a plus sign (+) inside this box →

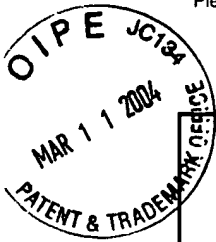


PTO/SB/21 (05-03)

Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

| | | | |
|---|-----------------------------|-------------------------------|--------------------|
| TRANSMITTAL FORM (to be used for all correspondence after initial filing) | Application Number | 10/661,105 | |
| | Filing Date | September 12, 2003 | |
| | First Named Inventor | KEIRSTEAD, HANS S. | |
| | Group Art Unit | 1651 | |
| | Examiner Name | | |
| Total Number of Pages in This Submission | 4 | Attorney Docket Number | IRVN-009CON |

ENCLOSURES (check all that apply)

| | | |
|--|---|--|
| <input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Supplemental Information Disclosure Statement SB08A (2pgs.) <input type="checkbox"/> Certified Copy of Priority Documents <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) | <input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) Postcard |
| Remarks | | |

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | |
|--|--|
| Signing Attorney/Agent (Reg. No.) | CAROL L. FRANCIS, 36,513 BOZICEVIC, FIELD & FRANCIS LLP |
| Signature | |
| Date | March 10, 2004 |

EXPRESS MAIL LABEL NO. EV 333 997 940US

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Express Mail No. EV 333 997 940US

| | | |
|--|--|--------------------|
| SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT Address to: Mail Stop Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 | Attorney Docket | IRVN-009CON |
| | First Named Inventor | KEIRSTEAD, HANS S. |
| | Application Number | 10/661,105 |
| | Confirmation No. | 6563 |
| | Filing Date | September 12, 2003 |
| | Group Art Unit | 1651 |
| | Examiner Name | |
| | Title: "OLIGODENDROCYTES DERIVED FROM HUMAN EMBRYONIC STEM CELLS FOR REMYELINATION AND TREATMENT OF SPINAL CORD INJURY" | |

Sir:

This is an Information Disclosure Statement submitted for the Examiner's consideration. A Form PTO-SB/08A listing the references accompany this paper. Applicants would appreciate the Examiner's initialing and returning the form to indicate that the references have been reviewed and made of record.

All of the references identified herein were disclosed in parent application serial number 10/406,817, filed 4/4/2003 and as such, copies thereof are not included pursuant to the provisions of 37 CFR § 1.98(d).

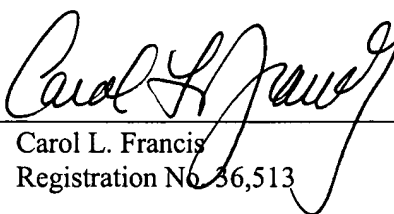
This Information Disclosure Statement is not intended as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that any one of the above references constitutes prior art to the present application within the meaning of 35 U.S.C. § 102.

As applicants have not yet received a first Action on the merits, no fee is believed to be required for filing this Disclosure Statement. If, however, the PTO finds that for some reason a fee is due, our Deposit Account No. 50-0815, Order No. IRVN-009CON may be charged thereon.

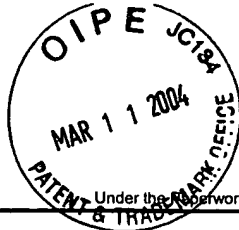
Respectfully submitted,
BOZICEVIC, FIELD & FRANCIS LLP

Date: March 10, 2004

By: _____


Carol L. Francis
Registration No. 36,513

BOZICEVIC, FIELD & FRANCIS LLP
200 Middlefield Road, Suite 200
Menlo Park, CA 94025
Telephone: (650) 327-3400
Facsimile: (650) 327-3231



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

| | | | | | |
|--|-----------------------|--|---|--|--|
| Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i> | | | | Complete if Known | |
| | | | | Application Number | 10/661,105 |
| | | | | Filing Date | September 12, 2003 |
| | | | | First Named Inventor | KEIRSTEAD, HANS S. |
| | | | | Art Unit | 1651 |
| Sheet 1 of 1 | Examiner Name | | | | |
| | | | | Attorney Docket Number | IRVN-009CON |
| U.S. PATENT DOCUMENTS | | | | | |
| Examiner Initials* | Cite No. ¹ | U.S. Patent Documents Number Kind Code ² (if known) | Name of Patentee or Applicant of Cited Documents | Date of Publication of Cited Document MM-DD-YYYY | Pages, columns, lines, Where Relevant Passages or Relevant Figures Appear |
| | | 5,766,948 | Gage, et al. | 06-16-1998 | |
| | | 5,928,947 | Anderson, et al. | 07-27-1999 | |
| | | 6,040,180 | Johe | 03-21-2000 | |

| | | | | | | |
|---------------------------------|-----------------------|--|--------------------------------|--|---|----------------|
| FOREIGN PATENT DOCUMENTS | | | | | | |
| Examiner Initials* | Cite No. ¹ | Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
| | | | | | | |

| | | | |
|--|-----------------------|---|----------------|
| OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS | | | |
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| | | AKIYAMA, et al. "Remyelination of the rat spinal cord by transplantation of indentified bone marrow stromal cells", <i>J. Neurosci.</i> , (2002) Vol. 22(15): 6623-6630. | |
| | | BAIN, et al. "Embryonic stem cells express neuronal properties <i>in vitro</i> ", <i>Developmental Biology</i> , (1995) Vol. 168: 342-357. | |
| | | BARRES, et al. "Cell death and control of cell survival in the oligodendrocyte lineage", <i>Cell</i> , (1992) Vol. 70(1): 31-46. | |
| | | BILLON, et al. "Normal timing of oligodendrocyte development from genetically engineered, lineage-selectable mouse ES cells", <i>J. Cell Sci.</i> , (2002) Vol. 115: 3657-3665. | |
| | | BJÖRKLUND, et al. "Embryonic stem cells develop into functional dopaminergic neurons after transplantation in a Parkinson rat model", <i>PNAS</i> | |
| | | CARPENTER, et al. "Enrichment of neurons and neural precursors from human embryonic stem cells", <i>Exp. Neurology</i> , (2001) Vol. 172: 383-397. | |
| | | FREED. "Will embryonic stem cells be a useful source of dopamine neurons for transplant into patients with Parkinson's Disease?", <i>PNAS</i> , (2002) Vol. 99: 1755-1757. | |
| | | HAJIHOSEINI, et al. "Origin of oligodendrocytes within the human spinal cord", <i>J. Neurosci.</i> , (1996) Vol. 16(24): 7981-7994. | |
| | | HOLTKAMP, et al. "Chronic inflammatory demyelinating polyradiculoneuropathy with histologically proven optic neuritis", <i>Acta Neuropathol.</i> , (2001) Vol. 101: 529-531. | |
| | | KALMAN, et al. "Spectrum and classification of inflammatory demyelinating diseases of the central nervous system", <i>Curr. Neurology and Neurosci. Reports</i> , (2001) Vol 1: 249-256. | |

| | | | |
|--------------------|--|-----------------|--|
| Examiner Signature | | Date Considered | |
|--------------------|--|-----------------|--|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year

of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/08a (05-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

| | | | | | |
|---|---|--------------------------|--------------------|------------------------|-------------|
| Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | Complete if Known | | | |
| | | Application Number | 10/661,105 | | |
| | | Filing Date | September 12, 2003 | | |
| | | First Named Inventor | KEIRSTEAD, HANS S. | | |
| | | Art Unit | 1651 | | |
| | | Examiner Name | | | |
| Sheet | 1 | of | 2 | Attorney Docket Number | IRVN-009CON |

| | | |
|--|--|--|
| | KEIRSTEAD, et al. "Enhanced axonal regeneration following combined demyelination plus schwann cell transplantation therapy in the injured adult spinal cord", <i>Exp. Neurol.</i> , (1999) Vol. 159(1): 225-236. | |
| | KUO, et al. "Differentiation of monkey embryonic stem cells into neural lineages", <i>Biol. Reprod.</i> , (2002). | |
| | LIE, et al. "The adult substantia nigra contains progenitor cells with neurogenic potential", <i>J. Neurosci.</i> , (2002) Vol. 22(15): 6639-6649. | |
| | MCDONALD, et al. "Repairing the damaged spinal cord", <i>Scientific American</i> , (1999) Vol. 281(3): 64-73. | |
| | XIAN, et al. "A subset of ES-cell-derived neural cells marked by gene targeting", <i>Stem Cells</i> , (2003) Vol. 21: 41-49. | |
| | ZHANG, et al. "Adult brain retains the potential to generate oligodendroglial progenitors with extensive myelination capacity", <i>Proc. Natl. Acad. Sci. USA</i> , (1999) Vol. 96: 4089-4094. | |

| | | | |
|-----------------------|--|--------------------|--|
| Examiner Signature | | Date Considered | |
|-----------------------|--|--------------------|--|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.